Biology 1001A (Biology for Sciences I)
Fall 2019 Course Outline Summary*

Course Description

Biology 1001A (fall) and 1002B (winter) are designed to help students in the Faculty of Science build on the knowledge and skills acquired in Secondary School Biology as preparation for success in second year programs in the Biological Sciences.
Students enrolled outside the Faculty of Science are encouraged to choose Biology 1201A (General Biology I).

Educational Outcomes

By engaging in this learning environment, students can expect to enhance their ability to:

1. Build productive academic relationships with diverse members of the FY Bio community.
2. Collaborate with peers and/or instructors to create consensus around diverse ideas (e.g. during classes, studying, preparing team assignments, and collaborative testing).
3. Apply effective learning strategies to academic work.
4. Demonstrate a broad understanding, application, and analysis, of evolutionary principles pertaining to the origin and inheritance of genetic variation.
5. Communicate scientific ideas to an audience of peers and/or instructors in written, oral and graphic formats.
6. Apply scientific experimental design, equipment, skills and analyses to test hypotheses.
7. Locate, evaluate, and extract scientific ideas from academic and non-academic literature; ethically incorporate such ideas into academic work.

Blended Collaborative Course Design

This course invites students to engage in a "blended" learning environment in which face-to-face classes and team-based Skill Development Sessions are complemented by significant learning using online tools and platforms such as the OWL course site for administration, Microsoft *Office Suite* for documents management and collaboration, *iClickers* for classroom participation, *MindTap* for e-text reading and self-testing, *SimuText* to learn concepts through simulated experiments *and Labster* for simulations . Additional details regarding access codes, educational best practices and associated costs are posted to OWL.

Course Scheduling

Lectures: Section 200: Mon and Wed 10:30-11:20 am in North Campus Building (NCB) 101
Section 201: Tues and Thurs 10:30-11:20 am in North Campus Building (NCB) 101

Skill Development Sessions:
Skill Development Sessions (traditionally known as "Labs") are presented as five mandatory Modules that begin either the week of September 16 (for students with even-numbered Lab Sections) or the week of September 23 (for students with odd-numbered Lab Sections) with the exception of section 41. Locations for weekly Skills Sessions are shown on OWL. (If you are repeating this course, see Beata in Rm NCB 301 as soon as possible; you may be able to retain your previous Skill Development grade.)

**See additional information regarding accessibility, mental health, academic integrity etc. on the course OWL site*

Instructional Team

Instructors Instructors will be available to help with class material as announced on OWL.	**Beth MacDougall-Shackleton** **B&G 3046** **emacdoug@uwo.ca**	**Niki Sharan NCB** **301G** **nsharan@uwo.ca**
Skill Development Support	Winona Gadapati (Skills Coordinator) **wgadapa2@uwo.ca** Sheila Nicol, Daisy Wong	

Course Materials

1. ***Website:*** https://owl.uwo.ca/. Log in with your UWO username and password. Find course information and policies, get help, post questions, download lecture slides, take quizzes etc.

2. ***Textbook:*** Russell *et al*. 2018. *Biology: Exploring the diversity of life*. 4th Canadian Ed. Nelson Education, Ltd: Toronto. **The *current edition* of the online e-text version of this textbook, available through the *MindTap* platform, is a required resource for testable assigned readings and feedback.** See the Textbook and MindTap tab on OWL for further information and access.

3. ***Additional Materials:*** **Biology Blended Learning Resource Package is required.** This is a paper that provides individually registered access to essential online tools. **Safety glasses and a lab coat are also required.** These items are all available for purchase in the Western Bookstore.

Assessment

The majority of course grade falls on the two Term Tests and Final Exam.

Course Component		Schedule
Skill Development	25%	Five Modules as scheduled by your "Lab Section"
MindTap Quizzes[+]	3%	On MindTap
Guided Study Quizzes[++]	5%	On OWL; open 24 hr preceding Mon/Tues lectures
Oct Term Test [+++]	10%	Multiple Choice Test: 11:00am–1:00 pm, Sunday, October 6 (No MakeUp available for this test)
Nov Term Test [+++]	22%	Multiple Choice Test: 7:00–9:00 pm, Friday, November 1 MakeUp Test: 6:00 – 8:00 pm, Monday, November 11
Final Exam [+++]	35%	Multiple Choice and Short Answer. During the December exam period. (Do not pre-book travel during Dec. 8- 19)

[+] MIndTap Quizzes are for feedback only. Participation, rather than correct answers, is recorded for credit. See OWL for details.
[++] a 10% bonus will be added to GSQ grades to provide accommodation for missed Quizzes, technical difficulties etc.
[+++] All Term Tests and the Final Exam are cumulative and feature both an individual and a collaborative group component. Alternative weighting will transfer some weight from Term Tests to the Final Exam if this results in a higher course grade. See OWL for details.

Academic Conflicts and Accommodations

The first point of contact for all administrative issues in this course is the Biology Administrative Assistant, Beata Malczewski. You should contact Beata in person in Rm 301 NCB, if possible. If you can't see Beata in person and must email her (fybioadmin@uwo.ca), be sure to put 1001A, your full name, and a clear description of your issue in your email. Use your official Western email address. If

you have known conflicts or require religious accommodation for Skills Sessions or Test/Exam, contact Beata well in advance (i.e. two weeks). Contact Beata as soon as possible if you miss a Skills Session or Test/Exam due to illness, accident, etc. Written documentation presented to an Academic Counselor in your Faculty's Dean's Office is required for missed Skills Sessions, Tests/Exams etc. **See the course OWL site for detailed policy and deadlines.**

Class Cycle Schedule

Class topics will be presented in "Cycles" usually beginning on Wed/Thurs and finishing on the following Mon/Tues. Slides, Guided Study Assignments and Quizzes will be available under the Class Cycle tab on OWL in advance of each class. Section 200 (Mon/Wed) classes are repeated for Section 201 (Tues/Thurs); students may attend in either section but must complete the online Guided Study Quizzes for their registered section. Class screenshots with audio will be captured and then posted to OWL as Archives.

Week of	Cycle #	Lecture #	Biology 1001A Class Schedule 2019	Instructors
2-Sep		1	Welcome! (section 201) - Sept 5th.	All
9-Sep		1	Welcome! (section 200) - Sept 9th	All
	1	2	**Why Evolution is True**	MacDougall-
16-Sep	1	3	What is evolution, why is it important, and what evidence supports it?	Shackleton
	2	4	**Genetic Diversity: Sameness vs. Difference**	
23-Sep	2	5	What is genetic diversity and where does it come from?	
	3	6		Sharan
30-Sep	3	7	How is diversity maintained during cell division?	
	4	8		
Term Test 1: Sunday, October 6; 11:00 am – 1:00 pm; Room numbers will be posted on OWL				
7-Oct	4	9	How is diversity increased during sexual reproduction?	Sharan
	5	10		
Thanksgiving: Monday Oct 14; no class				
No Class Oct, 15th				
14-Oct	6	11	**Evolution in Populations:**	
21-Oct	6	12	How do selection, genetic drift, and other forces affect genetic variation?	MacDougall-
	7	13	How can we explain evolutionary mysteries such as	Shackleton
28-Oct	7	14	sex, conflict, and cooperation?	
	8	15		
Term Test 2: Friday, November 1; 7:00 – 9:00 pm; Room numbers will be posted on OWL				
Reading Week: Nov 4th to 8th; no classes or skills				
11-Nov	8	16	**Macroevolution:**	
	9	17	Where do new species come from?	
18-Nov	9	18	How are different groups of organisms related?	
	10	19	How do ecological interactions shape evolution?	MacDougall-
25-Nov	10	20	How does evolution affect human health?	Shackleton
	11	21	Are humans still evolving?	
2-Dec	11	22		
	11	23		
Final Exam date and time to be announced. Do not book travel during the Exam Period. Dec. 8-19.				

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